



Antecedents and consequences of role stress of retail sales persons

Martin Wetzels^a, Ko de Ruyter^{a,*}, Josée Bloemer^b

^a*Department of Marketing and Marketing Research, Faculty of Economics and Business Administration, Maastricht University,
P.O. Box 616, 6200 MD, Maastricht, Netherlands*

^b*Limburg University Centre, Department of Marketing, B-3590 Diepenbeek, Belgium*

Abstract

Given the central proposition in services marketing that service excellence is largely determined by the interaction between customer contact personnel and customers, we examine the antecedents and consequences of role stress in a retail context both from the employee and the customer perspective. We investigate the impact of the service control versus the empowerment model on role ambiguity and role conflict and we look at the effect of these role stressor on commitment towards the organization and to delivering service quality by retail sales persons. Finally, we explore the impact on customer perceived service quality. Empirical findings reveal, among other things, that both formalization and empowerment reduce role ambiguity. Role ambiguity in turn is negatively associated with both organizational commitment and commitment to quality. The latter type of commitment has a positive impact on customer perceived quality. © 2000 Elsevier Science Ltd. All rights reserved.

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1. Introduction

As the majority of retailers are operating in markets that are increasingly characterized by intense competition, decreased store loyalty and expanding price pressures, it is important that they focus on providing excellence in service quality. The growing recognition of perceived service quality as a significant determinant of business performance in terms of economic returns has generated considerable interest in the strategic value of service quality from academics as well as retail practitioners (Anderson et al., 1994; Buzzel and Gale, 1987; Jacobson and Aaker, 1987; Reichheld and Sasser, 1990; Rust et al., 1995). However, implementation of a strategy of service excellence depends strongly on the attitude and behavior of retail salespeople. As customer contact personnel, they are responsible for putting strategy into operation in their encounters with customers in retail outlets.

To improve effective implementation of service excellence strategies, more insight is needed in the factors that enhance or impede the delivery of quality services by

retail salespeople who perform on the 'front stage' of the company (Mangold and Babakus, 1991). In the emerging body of literature on the service encounter, several authors have pointed to the fact that customer contact personnel have to deal with 'back stage' demands from superiors as well as the needs and wishes of customers (e.g., Wheatherly and Tansik, 1994). In their boundary spanning role, retail salespeople are limited in their flexibility to go beyond the normal call of duty by organizational guidelines procedures (Parkington and Schneider, 1979; Schneider, 1980; Hartline and Ferrell, 1996), while customizing retail services to a customer's needs, or 'adaptive servicing', will often be critical to a favorable evaluation of service quality (Bitner, 1990; Bitner et al., 1990; Goodwin and Radford, 1993). These conflicting demands frequently lead to role stress.

Role stress has been shown to have a negative impact on organizational commitment, sales personnel's commitment to quality and eventually perceived service quality (Behrman and Perreault, 1984; Goolsby, 1992; Jackson and Schuler, 1985; Johnston et al., 1990; Micheals et al., 1987; Rizzo et al., 1970; Sager, 1994; Wheatherly and Tansik, 1993; Zeithaml et al., 1988). Role stress is particularly relevant in a retail services context, as retailing is a service delivery process which is subject to extensive customer participation and little control by the retail salesforce (Goodwin and Radford, 1993). Since role stress

* Corresponding author. Tel.: + 32-43-388-3839; fax: + 32-43-321-0265.

E-mail address: k.deruyter@mw.unimaas.nl (K. de Ruyter)

may severely impede a retailer's mission of providing service excellence, it is important to examine the antecedents of role stress and its effect on customer perceived service quality in a retail context. In order to determine what organizational practices consistently contribute to service quality from the customer's point of view, a perspective should be adopted that takes both the antecedents and consequences of role stress into account.

Such a perspective is adopted in this paper. It is structured as follows. First, we will offer a brief synthesis of the extant services marketing and organizational literature on key conceptual issues concerning role stress antecedents and consequences. We subsequently discuss the results of a study designed to provide insight into the role stress experienced by retail salespeople and the effect on service quality as perceived by their customers. We conclude with a number of implications of our results for retailers, the limitations of our study and directions for future research.

2. Conceptual framework

Kahn et al. (1964) define role stress as a composite construct consisting of the so-called role stressors of role conflict and role ambiguity. Role conflict is defined as "...the simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make more difficult compliance with the other" (Kahn et al., 1964, p. 19). For boundary spanning personnel expectations of the organization and expectations of customers may clash. For instance, when a superior expects that an employee serves as many customers as possible, a customer at the same time may demand personal attention. Role ambiguity occurs when a person does not have access to sufficient information to perform his or her role as an employee adequately (Kahn et al., 1964; Walker et al., 1975). For example, role ambiguity may result from the fact that employees are uncertain about the expectations of management or from the fact that they do not know how their performance will be evaluated.

In the recent services management literature, two rival paradigms are competing as to the question of how organizations should be managed and these paradigms suggest two potential antecedents of role stress in service organizations (Bowen and Lawler, 1995). One paradigm is the so-called *control model* that is based on the assumption that hierarchy and mechanistic bureaucracy will enhance productivity and quality. Levitt (1972, 1976) recommended this model for service industries, arguing that efficiency as well as quality would be ensured by standardization and formalization of tasks and limited decision-making for employees. There is a set procedure for serving customers, giving the organization control over customer-employee encounters, with McDonalds and Disney as a frequently cited examples (Tansik, 1990).

According to advocates of the control model, this approach leads to efficient service operations and improved service quality. Central to the control paradigm is the concept of formalization which has been defined as "...the extent to which rules, procedures, instructions and communications are written" (Pugh et al., 1968, p. 75). The presence of written rules, standards and policies, will influence role ambiguity and role conflict, as will be discussed in the next section (Kahn et al., 1964; Organ and Greene, 1981; Rizzo et al., 1970; Rizzo and House, 1972; Rogers and Molnar, 1976).

The second approach to managing service organizations is frequently referred to as the *involvement model* (Bowen and Lawler, 1995). According to this model, which has its roots in participatory management (e.g., Argyris, 1964; McGregor, 1960), customer contact employees are capable of coordination (e.g., through self-managing work teams) and control of service quality. Burger King and Marriott are often cited as role models of this approach (Zemke and Schaaf, 1989). A central concept to the involvement approach, which has become increasingly popular recently in service organizations, is empowerment (Bowen and Lawler, 1995; Hartline and Ferrell, 1996; Schlesinger and Heskett, 1991). The essence of empowerment may be best captured as "...the reverse of doing things by the book" (Zemke and Schaaf, 1989, p. 68). Employees are free to fine-tune service regulations in order to meet or exceed customer expectations. Two dimensions of empowerment have been identified: (1) competence and (2) control (Chiles and Zorn, 1995; Conger and Kanungo, 1988). Employees must both feel capable of performing their job in a competent way and be given the authority to make decisions. To date there has been little empirical evidence of the influence of empowerment on role stress (Bowen and Lawler, 1995). Whether the control model or the involvement model is the best approach to managing customer contact employees is largely contingent on the type of industry, the kind of customer-employee relationships (high vs. low contact) and the business strategy (Bowen and Lawler, 1995).

Three important consequences that have been associated with role stress of service employees are organizational commitment, commitment to quality and job performance. Porter et al. (1974, p. 604) define organizational commitment as "*the strength of an individual's identification with and involvement in a particular organization*". As an attitudinal construct organizational commitment can also be characterized in terms of three components: (1) a strong belief in and acceptance of the organization's goals and values, (2) a willingness to exert considerable effort on behalf of the organization and (3) a strong desire to maintain membership of the organization (Mowday et al., 1979, 1982). When customer contact personnel shares a set of common values aimed at one common purpose, a specific kind of commitment or

'service mindedness' may arise (Howard, 1990; Reardon and Enis, 1990). Service quality can be viewed as an example of such a common purpose (Hartline and Ferrell, 1996). Hence, commitment to (service) quality by customer contact employees could be an important determinant of perceived service quality by customers. Finally, and perhaps most importantly, job performance can be characterized as the degree to which employees execute their job tasks, responsibilities and assignments adequately. Essentially two categories of performance measures can be distinguished: (1) objective performance measures and (2) subjective or self-reported measures. Self-reported measures are often based on an assessment by the person himself or his supervisor. This reflects an internal perspective. However, in services organization it is the customer, which ultimately determines performance and evaluates it in terms of perceived service quality (Grönroos, 1983; Parasuraman et al., 1985; Schneider et al., 1979).

Thus, we identified two antecedents of role stress: (1) formalization and (2) empowerment, both of which have been brought forward as means to enhance the performance of service organizations. Organizational commitment, commitment to quality and perceived service quality are posited as consequences of role stress. Perceived service quality should be viewed not only as a direct consequence of role stress, but also as a consequence of organizational commitment and commitment to quality. To understand how aforementioned antecedents and consequences are related to our focal constructs of role ambiguity and role conflict, we will develop a number of hypotheses on the relation between these concepts and their antecedents and consequences in the next section.

3. Development of hypotheses

In formulating the hypotheses on the relations between the constructs we have looked to both the services marketing, salesforce and organizational theory for guidance. First of all, with regards to the relationship between formalization and role stressors, meta-analytic studies found a negative relationship between formalization and role ambiguity, while the results for the relationship between formalization and role conflict are mixed (e.g., Fisher and Gitelson, 1983; Jackson and Schuler, 1985). However, Organ and Greene (1981) and Nicholson and Goh (1983) found a positive relationship between formalization and role conflict for employees possessing professional norms. It has also been reported that formalization limits the flexibility of boundary role positions, thus leading to increased levels of role conflict also (Clopton, 1984; Micheals et al., 1987). For instance, Parasuraman et al. (1988) relate role conflict for customer contact personnel to excessive paperwork and internal roadblocks. This relationship is corroborated by the find-

ings of Micheals et al. (1987) in industrial buying context. On the basis of the literature, therefore, we formulate the following hypotheses:

- H₁: *There will be a negative relationship between formalization and role ambiguity.*
- H₂: *There will be a positive relationship between formalization and role conflict.*

Little empirical research on the relationship between empowerment and role stress has been conducted (Bowen and Lawler, 1995). As was argued above, empowerment should lead to a reduction of role stress as customer contact personnel are allowed more flexibility which they can use to avoid role conflict. Furthermore, as empowered employees must rely on their own information in decision making, role ambiguity will be reduced also. However, the scarce empirical evidence that is available points in another direction. Much to their surprise, Hartline and Ferrell (1996) found that empowerment was positively related to role ambiguity. This positive relation is explained by the fact that empowerment may initially increase uncertainty, as a result of the fact that there are less standards or procedures that can be used as guidelines by employees. Employees have the freedom to make decisions, but they may lack the skills to do so (i.e., employees are given control, nevertheless lack competence). Finally, Hartline and Ferrell (1996) report a non-significant relation between empowerment and role conflict. Partly on the basis of Hartline and Ferrell (1996) and partly on the basis of theorizing we develop the following hypotheses with regards to the relationship between empowerment and role stress:

- H₃: *There will be a positive relationship between empowerment and role ambiguity.*
- H₄: *There will be a negative relationship between empowerment and role conflict.*

Behrman and Perreault (1984) have demonstrated that role conflict and role ambiguity should not be treated as independent constructs (cf. Rizzo et al., 1970). They argue that role conflict should be treated as a determinant of ambiguity as conflicting job demands may increase ambiguity in serving customers. Therefore, we hypothesize that

- H₅: *There will be a positive relationship between role conflict and role ambiguity.*

Next, we will develop hypotheses on the relationship between the outcome variable of organizational commitment and role stressors. Although Mowday et al., (1982) indicate that this relationship still has not completely been untangled, several meta-analytic studies have consistently found a negative relationship between organizational commitment and role ambiguity and role conflict (e.g., Fisher and Gitelson, 1983; Jackson and Schuler,

1985; Mathieu and Zajac, 1990). Therefore, the following hypotheses are proposed:

H₆: *There will be a negative relationship between role ambiguity and organizational commitment.*

H₇: *There will be a negative relationship between role conflict and organizational commitment.*

With regard to commitment to quality as a consequence of role stressors, previous research confirmed a negative relation between role ambiguity and role conflict and commitment to quality (Hartline and Ferrell, 1996). Consequently, the following hypotheses will be tested:

H₈: *There will be a negative relationship between role ambiguity and commitment to quality.*

H₉: *There will be a negative relationship between role conflict and commitment to quality.*

With regard to job performance, previous research reports only limited support for a negative relationship between both role conflict and role ambiguity and objective and subjective measures of service quality (Fisher and Gitelson, 1983; Jackson and Schuler, 1985). Bagozzi (1978) found a strong indication for the adverse effects role conflict on sales, an objective performance measure. Behrman and Perreault (1984), on the other hand, report that role stress was the most important determinant of self-rated performance in an industrial salesperson context. In particular, these authors found a negative relationship between role ambiguity and performance, and a positive relationship between role conflict and performance. Similar findings are reported by Micheals et al. (1987) and Dubinsky and Hartley (1986). A negative relationship between role ambiguity and job performance seems plausible, but how can the positive association between role conflict and performance be explained? Several authors have suggested that role conflict may be unavoidable in a boundary position (Behrman and Perreault, 1984; Walker et al., 1975). Hence, performance will depend on the degree to which the boundary spanner will be able to cope with role conflict (Goolsby, 1992). As a result the following hypotheses on the relationship between role stressors and customer perceived service quality are formulated:

H₁₀: *There will be a negative relationship between role ambiguity and customer perceived service quality.*

H₁₁: *There will be a positive relationship between role conflict and customer perceived service quality.*

Finally, employees who are committed to their organizations exhibit less commitment to the customers. It is likely that these employees will perform their jobs with the interest of the organization at heart. They may uphold company 'policy' or do things 'by the book', which may have a negative impact on customers perception of quality (Hartline and Ferrell, 1996).

Alternatively, employees who are committed to quality will be more oriented to delivering service quality to the customer. This is likely to have a positive impact on customers' perceptions (Cespedes, 1991; Howard, 1990; Piercy and Morgan, 1991; Reardon and Enis, 1990). This leads to the two final hypotheses:

H₁₂: *There will be a negative relationship between organizational commitment and customer perceived service quality.*

H₁₃: *There will be a positive relationship between commitment to quality and customer perceived service quality.*

Fig. 1 offers an overview of aforementioned hypotheses.

In the next section we will report on the results of an empirical study designed to test these hypotheses for a retail context.

4. An empirical study

4.1. Research setting

In our study we adopted an internal as well as an external focus on retail organization. Within the retail organizations, we measured formalization, empowerment, role stress, organizational commitment and commitment to quality. For this part, retail salespersons from seven major retailers in Belgium were interviewed on the basis of a structured questionnaire. Our sample included retail services associated with the marketing of goods (department stores, supermarkets, fast food) or 'customer services' as well as 'pure' services (entertainment, health care services) (Grönroos, 1983). In total, 148 retail sales persons were included in our study. Taking an external perspective, we measured customer perceived service quality. For this part, approximately 100 customers were interviewed for each retailer with respect to their perception of the quality of service offered by the retail organization. In total, 708 retail customers participated in our study.

4.2. Questionnaire design

Formalization was operationalized using a six item scale as proposed by Ferrell and Skinner (1988). This instrument is an adaptation of the scale developed by John (1984). Empowerment was operationalized using the nine item empowerment instrument suggested by Hartline and Ferrell (1996). They developed this instrument on the basis of the tolerance of freedom scale from LBDQ XII (Stogdill, 1963). This empowerment instrument consists of two dimensions: competence and control. Role conflict and role ambiguity were measured by using the fourteen item instrument developed by

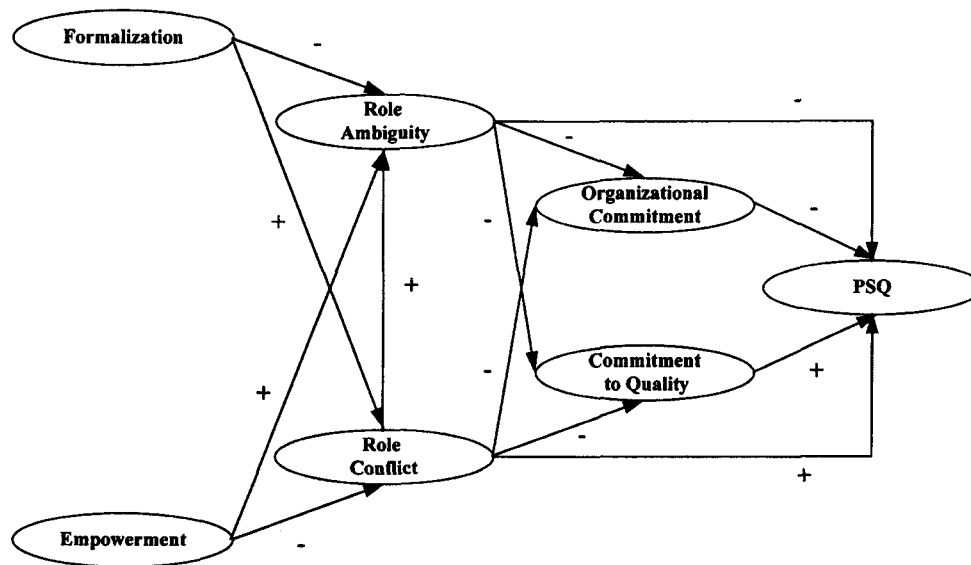


Fig. 1. The conceptual framework.

Table 1
Matrix of zero-order correlations^{a,b}

		1	2	3	4	5	6	7	8
1	Empowerment (trust)	0.82							
2	Empowerment (freedom)	0.61 ^c	0.83						
3	Formalization	0.22 ^d	0.13	0.41					
4	Role ambiguity	-0.53 ^c	-0.30 ^c	-0.29 ^c	0.86				
5	Role conflict	-0.04	-0.08	-0.03	0.32 ^e	0.82			
6	Org. commitments	0.42 ^c	0.36 ^c	0.24 ^d	-0.56 ^c	-0.21 ^c	0.93		
7	Commitment to quality	0.30 ^c	0.26 ^d	0.18 ^d	-0.46 ^c	-0.12	-0.63 ^c	0.82	
8	Perceived service quality	-0.17 ^c	-0.18	-0.06	-0.04	0.06	-0.15	0.18 ^c	0.95

^aCoefficient Alpha in the diagonal.^bTwo-tailed test.^c $p < 0.05$.^d $p < 0.01$.^e $p < 0.001$.

Rizzo et al. (1970). In this instrument role ambiguity is represented by six items and role conflict is measured by eight items. Organizational commitment was operationalized using the nine item version of the Organizational Commitment Questionnaire (OCQ) proposed by Mowday et al. (1979) Porter et al. (1974). It has been pointed out by several authors that the six reverse-scored items do not assess organizational commitment, but rather turnover intention (Mathieu and Zajac, 1990; Tett and Meyer, 1993). Therefore, we reduced the fifteen item original OCQ scale to a nine item version, excluding the items measuring turn-over intention. Commitment to quality was measured in a similar manner. Instead of the organization as the object of commitment, service quality was denoted by the object of commitment. This adaptation of the OCQ was suggested by Hartline and Ferrell (1996). Finally, perceived service quality was

operationalized using the twenty two item SERVPERF-instrument proposed by Cronin and Taylor (1992). This adaptation of the original SERVQUAL-instrument only incorporates the perception element of the original scale. All items on the different scales were measured with a nine-Point Likert-type format.

4.3. Measurement properties

As can be observed from Table 1, all scales exhibit a value of coefficient alpha exceeding 0.7, as suggested by Nunnally and Bernstein (1994) except for formalization.

The original six item scale as proposed by John (1984), who reported a relatively low coefficient alpha of 0.63, had a coefficient alpha of 0.32 in our study. In order to improve the reliability of the scale-items with a item-total correlation lower than 0.2 were deleted from the original

scale. The coefficient alpha for the remaining three items was 0.41. Further deletion of items did not result in any substantial improvement in internal consistency. Furthermore, the dimensionality of the empowerment instrument was explored. Common factor analysis (PFA with varimax rotation) was carried out and on the basis of the scree plot we found a two-factor solution. It revealed high loadings on the presumed factors; competence and control.

4.4. Data analysis

This study used a cross-level design. In this design phenomena at one level affect those on another level (Klein et al., 1994; Rousseau, 1978, 1985). In our study we distinguished two levels: (1) the organizational unit and (2) the individual retail employee. It was the purpose of our study to measure all constructs at the lowest possible level. However, perceived service quality is not so much the result of an individual effort, but of the organizational unit as a whole. As a result, it might be extremely difficult to attribute perceived service quality to particular retail employees. Therefore, we measured perceived service quality at the level of the organizational unit. All other constructs were measured at the level of the individual retail employee. As suggested by Rousseau (1978), the individual retail employee is the unit of analysis. For the external data this means that, average perceived service quality scores were calculated for the seven retail units.

These mean scores were assigned to the corresponding individual retail employees. In other words, each employee in a particular unit had the same perceived service quality score.

We used path analysis to test the aforementioned hypotheses. As published scales with favorable psychometric properties were used, we decided not to break the scales into several indicators (Schmitt and Bedeian, 1982; Williams and Hazer, 1986). Nevertheless, the potentially biasing effect of measurement error had to be taken into account (Bagozzi, 1980a,b; Bollen, 1989; James et al., 1982; Kenny, 1979). Therefore, we used an alternative approach as proposed by Williams and Hazer (1986). They suggest a two-stage process, in which the measurement model is first specified and then employed in the second stage when the structural model is estimated. More specifically, the reliabilities of the measured variables are used to specify the measurement model (cf. Kenny, 1979; Loehlin, 1987). The path from any construct to its indicator ($\lambda_{ij}^{X,Y}$) equals the square root of the reliability of the indicator and the error variance (δ_i, ε_i) equals one minus the reliability in the case of using a correlation matrix as input. Table 2 shows the matrix representation of the conceptual framework.

A correlation matrix on the basis of listwise deletion of missing values was calculated using PRELIS (See also Table 1) and was used as input to LISREL 7. This program provides maximum-likelihood estimates of the

Table 2
Matrix representation of conceptual framework

$$\begin{array}{l} \text{Structural model} \\ \begin{bmatrix} \text{RA} \\ \text{RC} \\ \text{OC} \\ \text{CQ} \\ \text{PSQ} \end{bmatrix} = \begin{bmatrix} 0 & \beta_{12} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ \beta_{31} & \beta_{32} & 0 & 0 & 0 \\ \beta_{41} & \beta_{42} & 0 & 0 & 0 \\ \beta_{51} & \beta_{52} & \beta_{53} & \beta_{54} & 0 \end{bmatrix} \begin{bmatrix} \text{RA} \\ \text{RC} \\ \text{OC} \\ \text{CQ} \\ \text{PSQ} \end{bmatrix} + \begin{bmatrix} \gamma_{11} & \gamma_{12} \\ \gamma_{21} & \gamma_{22} \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{bmatrix} \begin{bmatrix} \text{EMP} \\ \text{FORM} \end{bmatrix} + \begin{bmatrix} \zeta_1 \\ \zeta_2 \\ \zeta_3 \\ \zeta_4 \\ \zeta_5 \end{bmatrix} \end{array}$$

Measurement model

$$\begin{array}{l} \begin{bmatrix} X_1 \\ X_2 \\ X_3 \end{bmatrix} = \begin{bmatrix} 1^a & 0 \\ \lambda_{21}^X & 0 \\ 0 & \lambda_{32}^{X^a} \end{bmatrix} \begin{bmatrix} \text{EMP} \\ \text{FORM} \end{bmatrix} + \begin{bmatrix} \delta_1 \\ \delta_2 \\ \delta_3^a \end{bmatrix} \\ \\ \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \\ Y_5 \end{bmatrix} = \begin{bmatrix} \lambda_{11}^{Y^a} & 0 & 0 & 0 & 0 \\ 0 & \lambda_{22}^{Y^a} & 0 & 0 & 0 \\ 0 & 0 & \lambda_{33}^{Y^a} & 0 & 0 \\ 0 & 0 & 0 & \lambda_{44}^{Y^a} & 0 \\ 0 & 0 & 0 & 0 & \lambda_{55}^{Y^a} \end{bmatrix} \begin{bmatrix} \text{RA} \\ \text{RC} \\ \text{OC} \\ \text{CQ} \\ \text{PSQ} \end{bmatrix} + \begin{bmatrix} \varepsilon_1^a \\ \varepsilon_2^a \\ \varepsilon_3^a \\ \varepsilon_4^a \\ \varepsilon_5^a \end{bmatrix} \end{array}$$

^aFixed parameter.

free parameters in the conceptual framework. The goodness-of-fit can be assessed using the corresponding χ^2 statistic, the root-mean-square residual (RMSR) and several fit indices, such as the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) (Hu and Bentler, 1995; Jöreskog and Sörbom, 1989). Apart from these absolute fit measures, we also used the value of the normed fit index (NFI) as proposed by Bentler and Bonett (1980). This so-called incremental fit index is based on the comparison between the structural null model and the proposed model. The structural null model does not assume relation between the endogenous and exogenous variables (cf. William and Hazer, 1986). More in particular, the NFI is defined as follows (Bentler and Bonett, 1980):

$$\text{NFI} = \frac{(\chi^2_{\text{Null}} - \chi^2_{\text{Model}})}{\chi^2_{\text{Null}}}$$

The use of causal models is highly advocated by leading researchers in the field of organizational theory (Jackson and Schuler, 1985; King and King, 1990; Van Sell et al., 1981). Causal models allow to jointly test the effects of antecedents and outcomes on role ambiguity and role conflict and are as such clearly preferable to correlation and regression analyses.

4.5. Results

Table 3 summarizes the results of our analysis. From this table it can be observed that the proposed conceptual model shows an adequate fit to the data.

The χ^2 statistic equals 20.23 with 12 degrees of freedom ($p = 0.063$) with GFI = 0.966 and AGFI = 0.899. The NFI equals 0.890 which approximates the recommended level of 0.9 (Bentler and Bonett, 1980). Additionally, the RMSR has an acceptable value of 0.054. Further indications for the goodness-of-fit are provided by an analysis of the fitted standardized residuals and the Q -plot (Jöreskog and Sörbom, 1989). Only four out of 36 fitted standardized residuals exceed the absolute value of 2.58, which was proposed by Jöreskog and Sörbom (1989) as a cut-off value. Visual inspection of the Q -plot corroborates our findings, as the residuals are grouped around a line of

45°. Finally, the coefficient of determination of the structural model is 0.514. In other words, 51.4% of the variance is accounted for by the exogenous variables.

Although we found an acceptable fit for the proposed model, we further modified the model in order to achieve a more parsimonious representation of the data (cf. McCallum, 1986). To begin with, we deleted nonsignificant paths from the model. Next, we inspected the modification indices. These indicate the improvement in overall χ^2 test that would be achieved if that parameter would be free. No modification indices higher than 3.841 were found (χ^2 with 1 degree of freedom and $\alpha = 0.05$). The resulting revised model (M_{02}) is presented in Fig. 2.

From Table 3 it can be seen that the χ^2 value for M_{02} is 13.53 with 17 degrees of freedom ($p = 0.700$). The RMSR, the GFI, the AGFI and the NFI show a substantial improvement from model M_{01} to model M_{02} . Moreover, none of the fitted standardized residuals exceed 2.58 in absolute value. For the Q -plot findings are similar to Model M_{01} . Finally, the coefficient of determination of the structural model increased from 0.514 to 0.571.

With regard to the antecedents of role stressors, the results indicated negative associations between formalization and role ambiguity and empowerment and role ambiguity, while no significant relationships between formalization and role conflict and empowerment and role conflict were found. The results supported hypothesis 1 only, while hypotheses 2, 3 and 4 have to be rejected. Concerning the two role stressors, there appeared to be a positive association between role conflict and role ambiguity. This means hypothesis 5 had to be accepted. Furthermore, there appeared to be a negative relationship between role ambiguity and organizational commitment and between role ambiguity and commitment to quality. This means hypotheses 6 and 8 could be accepted. In contrast, the hypothesized direct negative relationship between role ambiguity and perceived service quality was not supported by the data, leading to a rejection of hypothesis 10. With regards to the consequences of role conflict, no significant relationships between role conflict and organizational commitment, commitment to quality and perceived service quality were found. Therefore, hypotheses 7, 9 and 11 were rejected. Finally, hypotheses 12 and 13 address the effects of organizational commitment and commitment to quality on perceived service quality. Organizational commitment has a negative effect on perceived service quality; hypothesis 12 was supported. Alternatively, our findings reveal that commitment to quality had a positive impact on perceived service quality, thus supporting hypothesis 13.

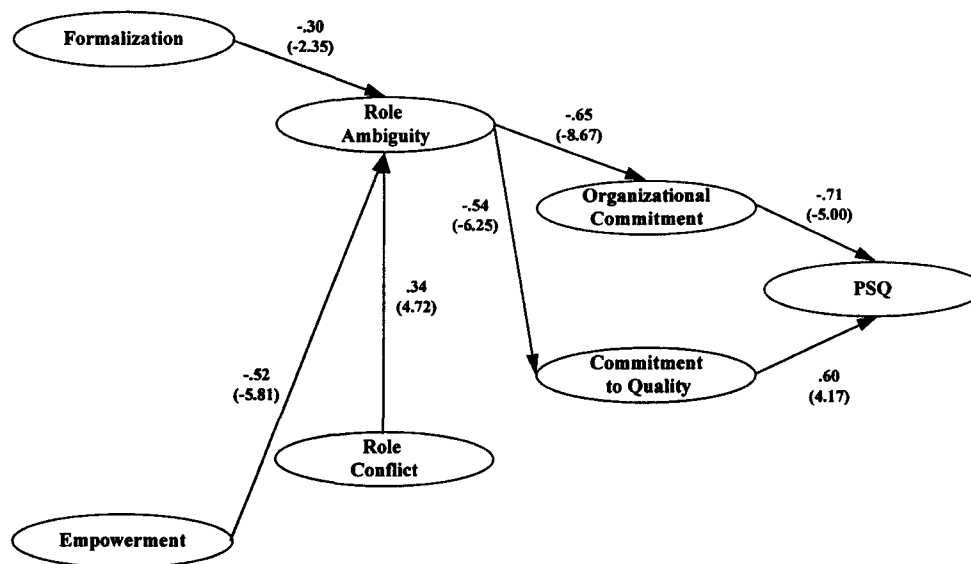
Table 3
Results of path-analysis

Model	df	χ^2	p	RMSR	GFI	AGFI	NFI
M_{00}^a	25	184.05	< 0.001	0.226	0.766	0.663	–
M_{01}	12	20.23	0.063	0.054	0.966	0.899	0.890
M_{02}	17	13.53	0.700	0.043	0.978	0.952	0.926

^aStructural null model.

5. Discussion

As the results indicate, both formalization and empowerment lead to a decrease in role ambiguity. The

Fig. 2. Results for revised model (M₀₂).

negative association between formalization and role ambiguity is in accordance with previous findings from the literature; the presence of formal rules and routines clarifies role expectations of retail sales persons, thereby reducing role ambiguity. However, our finding with regards to the relationship between empowerment and role ambiguity is contrary to the results obtained by Hartline and Ferrell (1996). This applies to both the control and competence aspects of empowerment. A sales representative who is allowed to interpret norms and procedures will be able to reduce uncertainty about what should be done and how, even in close supervision settings like retailing.

The impact of empowerment on role ambiguity is relatively stronger than the impact of formalization on role ambiguity. This seems to suggest that in the retail service encounter, employees need policies and procedures but above all the freedom to fine-tune these as needed. This suggests that in a retail setting empowerment may need to be procedurally driven (Bowen and Lawler, 1995), or as Bourgeois and Brodwin (1984) suggest, for empowerment to be effective it should be directed by superordinate goals and policies.

We failed to find significant relationships between formalization and role conflict and empowerment and role conflict. Likewise, role conflict does not seem to have an effect on organizational commitment, commitment to quality and perceived service quality. Several reasons for these results have been brought forward in the literature. Behrman and Perreault (1984) argue that aspects of conflict are inherent to sales positions and therefore independent of either formalization and empowerment. Singh and Rhoads (1991) has pointed out that role conflict cannot easily be controlled by management in terms of formalization and/or empowerment strategies. Indeed, it

has been demonstrated that personal characteristics of sales persons (e.g., innovativeness, locus of control) offer a better explanation of role conflict (Behrman and Perreault, 1984). Furthermore, Johnston et al. (1990) suggest that a moderate level of conflict may even be good for salespeople and therefore will not have a negative effect on their commitment to the organization. Finally, it has been argued that only those employees who can cope with role conflict will eventually stay in their boundary spanning positions (Goolsby, 1992). At the same time, role conflict is positively related to role ambiguity. This is in accordance with the findings of Behrman and Perreault (1984) who argue that conflicting job demands will lead to higher ambiguity.

Role ambiguity is negatively associated with both organizational commitment and commitment to quality. This is also in accordance with previous empirical findings. If employees think of organizational commitment as net result of revenues minus costs, then higher degrees of role ambiguity would represent a cost which would eventually lead to weakened individual commitment bonds if returns from the organization remain constant (Michaels et al., 1988). Alternatively, less role ambiguity enables organizational members to define a clear commitment to service quality (Hartline and Ferrell, 1996).

There is a relatively strong negative association between organizational commitment and perceived service quality. This is in contrast with the outcome of a study reported by Boshof and Mels (1995) who reported a positive causal path from organizational commitment to service quality. This difference in results may be accounted for in two ways. Boshof and Mels (1995) used management assessment of perceived service quality instead of evaluations by customers themselves which might explain the difference in results. Moreover, it has

been argued that customer contact personnel with extensive boundary spanning activities (such as sales persons in retail selling) are more likely to be committed to constituencies whose interests may seem at odds with those of the organization (Johnston et al., 1990). These other commitment bonds may result in multiple commitments of retail sales persons to colleagues, professional norms and customers (Reichers, 1985). The latter argument is supported by the positive impact of commitment to quality on customer perceived service as this type of commitment is more oriented toward the customer. Commitment to quality will help to reduce the different service gaps and enhance the delivery of quality services.

Part of the strength of a research project lies in the recognition of its limitations. These limitations may serve as points for a future research agenda. First of all, we only identified three organizational influences (i.e., formalization, empowerment and role conflict) in our model on role ambiguity. While these factors account for 59% of the variance in role ambiguity and this result seems more than acceptable, it would also be worthwhile to examine the influence of personal variables, such as innovativeness, creativity, attitude toward complaining and locus of control, as antecedents to role ambiguity as these characteristics are often required in boundary positions (Michaels et al., 1988). This may increase the conceptual as well as the explanatory power of a model of role stressors. From previous studies we have learned that results pertaining to the relationship between role conflict and the antecedents incorporated in our model are mixed. However, with regard to the modest explanatory capacity of role conflict in our model, it should be noted that conflict can take on many forms (intersender, intrasender, person-role, interrole) as pointed out by Kahn et al. (1964). Since our operationalization of role conflict reflected measurement of overall role conflict only, it might well be that the effects of specific types of conflict were not observable at the aggregate level. Additional research is needed to examine the antecedents and consequences of multiple types of role conflict in a services setting.

Secondly, commitment to the organization seems not a desirable objective as it has a negative impact on customer perceived service quality. In a retail services setting, employees that are too committed to the organization might let the organization's interest prevail over the customer's. However, this does not mean that measures should be taken to decrease organizational commitment for the benefit of increasing perceived service quality. Other issues may be at stake, as organizational commitment has been shown to reduce employee's intentions to leave (Williams and Hazer, 1986). We need to know more about the organizational commitment–perceived quality relationship and how this operates in the context of retail services. It may very well be that as a consequence of downsizing and outsourcing

(Hammer and Champy, 1993; Hamel and Prahalad, 1994) and the fact that no more 'gold watches' are being presented to loyal employees that the impact of organizational commitment is changing. As a result, it can be that the focus on the customer may become even more explicit. Further research into the organizational commitment–perceived quality relationship is warranted.

On the other hand, our findings suggest that commitment to quality has a positive effect on service quality. While the two types of commitments incorporated in our study explain more than 20% of the variance in perceived service quality, the notion of a multiple commitment construct in retail setting merits further attention. Future research should examine other types of commitments (e.g., commitment to colleagues, the department, the community, management vs. employee commitment to quality) and their potential and relative impact on perceived service quality.

Thirdly, we limited our examination to perceptions of service quality as a consequence of sales employee role stress. Additional research is needed to model these consequences in terms of customer intentions and behavior (e.g., repeat buying, brand loyalty, complaining, word-of-mouth communication). Limitations lie also in the compatibility of the procedure of structural equation modelling that was followed. Although the formulated model captures the observed relationships satisfactorily and allows us to test the hypotheses on the antecedents and consequences of role stressors, it should be noted that a statistical fit might also be achieved with models other than the ones we tested in our study. Despite of the fact that we used a multicompany sample, well-established multi-item composite measures and a dyadic (employee–customer) perspective, our findings are constrained by intricate artefacts due to sampling bias both at the organizational, employee and customer levels, measurement error and social desirability.

Fourthly, in our study we related individual level measures (e.g., role stress) to organizational level measures (e.g., perceived service quality). Our findings should be replicated with level measures that are similar. For instance, by including various stores of the same retail organization. Finally, our results need to be verified by longitudinal research designs and extended to service settings beyond retailing.

6. Managerial implications

The managerial implications of our findings apply to antecedents and consequences of role stressors in retail organizations. Both formalization and empowerment reduce the level of role ambiguity of retail sales persons which in itself has a strong negative impact on commitment to quality. While formalization and empowerment may peacefully co-exist, a contingency

approach depending on, among others, the use of non-routine tasks and complex technology, the predictability of the retail environment and the growth and social needs of employees should be taken into consideration when choosing the optimum mix of formalization and empowerment carefully (Bowen and Lawler, 1995). Furthermore, measures should be taken to reduce role conflict as this has also a significant influence on role ambiguity. These measures include improving upward and downward communication and the use of formal training on task-related knowledge and skills (Hartline and Ferrell, 1996).

Commitment to quality is a significant determinant of customer perceptions of service quality. Retailers should undertake steps to increase this type of commitment among their employees. Previous research has suggested that an efficient way to encourage customer-oriented attitudes and behavior is to evaluate and reward this type of commitment (Reardon and Enis, 1990). More specifically this means establishing service quality performance criterion, monitoring of and providing individual and group feedback on service quality, establishing a recognition program containing both financial and non-financial rewards and integrating service quality in personnel development programs.

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